

Luz A. de Wit, Ph.D.

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Postdoctoral Associate, Gund Institute for Environment, Rubenstein School for the Environment and Natural Resources, University of Vermont

Areas of expertise:

- **Health Sciences:** veterinary medicine, epidemiology, public health, pathology
 - **Biological Sciences:** disease ecology, conservation biology, invasion biology, ecology, evolution, physiology
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Education

- **University of California, Santa Cruz.**
Ph.D. in Ecology and Evolutionary Biology, August 2019.
Dissertation Committee: Don Croll, Marm Kilpatrick, Karen Shapiro, Dolores Correa Beltran
 - **Tufts University.**
MSc. in Conservation Medicine. August 2012.
 - **Universidad Nacional Autónoma de México.**
BS in Veterinary Medicine and Animal Husbandry. June 2010.
Residency in Systemic Pathology.
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Peer Reviewed Publications

- **de Wit L. A.,** D. Croll, B. Tershy, K. Newton, D. Spatz, N. Holmes, and A. M. Kilpatrick. Estimating burdens of neglected tropical zoonotic diseases on islands with introduced mammals to guide control and eradication assessments. *Am. J. Trop. Med. and Hyg.* 96(3), 2017, pp. 749-757.
<https://doi.org/10.4269/ajtmh.16-0573>
 - S. G. Crandall, J. L. Ohayon, **L.A. de Wit**, J.E. Hammond, K.L. Melanson, M.M. Moritsch, R. Davenport, D. Ruiz, B. Keitt, N.D. Holmes, H. G. Packard, J. Bury, G. S. Gilbert & I. M. Parker (2018) Best practices: social research methods to inform biological conservation. *Australasian Journal of Environmental Management.* 25:1, 6-23, <https://doi.org/10.1080/14486563.2017.1420499>
 - **de Wit L. A.,** D. Croll, B. Tershy, D. Correa, H. Luna-Pasten, P. Quadri, and A. M. Kilpatrick. (2019) Potential public health benefits from cat eradications on islands. *PLoS Negl Trop Dis.* 13(2): e0007040.
<https://doi.org/10.1371/journal.pntd.0007040>
 - K. Shapiro, L. Bahia-Oliveira, B. Dixon, A. Dumètre, **L.A. de Wit**, E. VanWormer & I. Villena. Environmental transmission of *Toxoplasma gondii*: Oocysts in water, soil and food. *Food and Waterborne Parasitology* 12: e00049. <https://doi.org/10.1016/j.fawpar.2019.e00049>
 - **de Wit, LA,** Kilpatrick, AM, VanWormer, E, Croll, DA, Tershy, B, Kim, M, Shapiro, K. Seasonal and spatial variation in *Toxoplasma gondii* contamination in soil in urban public spaces in California, United States. *Zoonoses Public Health.* 2019; 00: 1– 9. <https://doi.org/10.1111/zph.12656>
 - **de Wit, L.A.,** Zilliacus, K., Quadri, P., Will, D., Grima, N., Spatz, D., Holmes, N., Tershy, B., Howald, G., Croll, D. Invasive vertebrate eradications on islands as a tool for implementing global sustainable goals. *In print. Environmental Conservation.*
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Research Submitted or in Preparation for Publication

- Fisher, B., **L.A. de Wit**, T. H. Ricketts. Natural Capital and Human Health. *In review*, Environmental Economics and Policy. December 2019.

- **de Wit, L.A.**, Ricketts, T. H. Trade and deforestation predict an invasive-driven snail-borne disease at global and local scales. *In review*, The Lancet Planetary Health.
- J. D. Gourevitch, A. M. Alonso-Rodríguez, N. Aristizábal, **L. A. de Wit**, E. Kinnebrew, C. E. Littlefield, M. Moore, C. C. Nicholson, A. J. Schwartz, T. H. Ricketts. Projected loss of ecosystem service benefits disproportionately affects non-white and lower-income populations. *In review*, PNAS
- Vickery A. G., **L. A. de Wit**, A. M. Kilpatrick. Trophic transmission of plague bacteria, *Yersinia pestis*, to mammalian predators. *In preparation*, Ecology.

Research in Progress

- **Aligning conservation and public health goals to tackle the wildlife trade.**
Co-PIs: Melissa Cronin and Lourdes Martinez. Gund Institute for the Environment, University of Vermont and University of California Santa Cruz.
- **Assessing the health costs of wildlife markets.**
Co-PIs: Dr. Taylor Ricketts, Dr. Brendan Fischer, Dr. Robin Naidoo. Gund Institute for the Environment, University of Vermont

Work Experience

- **Postdoctoral Associate**, Gund Institute for Environment, University of Vermont, September 2019 – *present*
- **Research consultant**, Science for Nature and People Partnership (SNAPP), Ecological Levers for Health, Santa Barbara, California. *September 2019*
- **Lecturer**, Disease Ecology (BIOE 149, UC Santa Cruz), *June – August 2019*.
- **Guest Lecturer**
 - Human Functional Anatomy (BIO 135, UC Santa Cruz), *Spring 2014*.
 - Conservation Biology (ENVS 120, UC Santa Cruz), *Fall 2017*.
- **Teaching Assistant**
 - Systemic Pathology and Necropsy Lab (UNAM), *Fall 2009 – Spring 2010*
 - Human Functional Anatomy and Lab (BIO 135/135L, UC Santa Cruz), *Spring 2014*
 - Physiology and Development (Active Learning) (BIOE 20B, UC Santa Cruz), *Spring 2015, Winter 2017, Fall 2018, Winter 2019*
 - Microbiology (METX 119, UC Santa Cruz), *Fall 2015, Summer 2016 and Fall 2016*
 - Ecology and Conservation in Practice (BIOE 151, UC Santa Cruz), *Spring 2016, 2017 and 2019*
 - Conservation Biology (ENVS 120, UC Santa Cruz), *Fall 2017*
 - Disease Ecology (BIOE 149, UC Santa Cruz), *Spring 2018*
 - Ecology (BIOE 107, UC Santa Cruz), *Summer 2018*
 - Evolution (BIOE 109, UC Santa Cruz), *Summer 2018*
- **Research consultant**, Island Conservation, Santa Cruz, California, *January – November 2014; April – August 2019*
- **Veterinary Resident**, Marine Wildlife Veterinary Care and Research Center, California Department of Fish and Wildlife, Santa Cruz, California, *July 2012 – June 2013*
- **Veterinary Intern**, Department of Veterinary Diagnostic Pathology, School of Veterinary Medicine and Animal Husbandry (UNAM). Mexico City, Mexico, *August 2009 – June 2010*
- **Research Assistant**, Physiology and Anatomy Department, School of Veterinary Medicine and Animal Husbandry (UNAM), Mexico City, Mexico, *June 2007 – August 2008*

Mentoring Experience

- Small Mammal Undergraduate Research in the Forest (SMURF) program, UC Santa Cruz, Research Mentor for undergraduate students, *Fall 2016, Winter and Spring 2017*
- Science Internship Program (SIP), Research Mentor for high school students, *Summer 2017*

- Doris Duke Conservation Scholars Program, Graduate Research Mentor for undergraduate students, *Summer 2018*
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Presentations

- Ecological drivers of COVID-19 and lessons for future pandemics. Gund Institute's Earth Day. Burlington, Vermont, USA. *April 2020*
 - Potential public health benefits from cat eradication on islands. International Congress on Conservation Biology. Cartagena, Colombia. *August 2017*
 - Invasive Vertebrate Species and Neglected Zoonotic Diseases of Islands. Third International Conference in Disease Ecology. Mérida, Yucatán. *November 2013*
 - Brain and Optic Nerve Astrocitoma in an English Bulldog. XX National Congress of Veterinary Pathology, Puerto Vallarta, Jalisco, Mexico. *June 2011*
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Honors and Awards

- Gund Institute Fellow, *2019 – present*
 - Gund Institute Research and Travel Grant, *2019* (\$10,000)
 - Beca Complemento, Secretaría de Educación Pública (Mexico) *2013 – 2016* (\$14,500)
 - CONACYT-UCMEXUS Fellow, *2013 – 2018*
 - UC MEXUS Small Research Grant, *2014 – 2015* (\$1,500)
 - Rufford Foundation Small Grant, *2015 – 2016* (\$7,564)
 - UC MEXUS Dissertation Fellowship Grant, *2017 – 2018* (\$11,800)
 - Koret Fellowship for Research Mentors, *2017* (\$2,000)
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Service to the Academic Community

Reviewer:

- The American Journal of Tropical Medicine and Hygiene
 - Revista do Instituto de Medicina Tropical de São Paulo
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Languages

- Spanish: native speaker
 - English: advanced (written and spoken)
 - German: A1 level
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Relevant Skills and Interests

- Molecular biology techniques (DNA extraction, PCR, genetic sequencing)
- Necropsies (gross pathology and histopathology)
- R programming
- Hobbies: Outdoors activities and sports, natural history, literature and languages.